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ABSTRACT

By means of communication network analysis and individual interviews conducted between September 1982 and March 1983 with district administrators in a single medium-sized school district, this study describes the consequences of the 1975 decentralization of the district's communication network. Following a brief introduction and a discussion of the study's theoretical framework--which follows Weick's (1982) claim that school districts are open, internally loosely-coupled systems--the study's method of network analysis is described, including the use of the NEGOPY computer network program. used to analyze communications patterns from respondent data. The next section, which briefly explains the "NEGOPY Network Survey" from which noninterview data were gathered from 97 administrators is followed by a detailed discussion of the study's results. The latter discussion synthesizes responses made by 51 of the 97 administrators to the study's six interview questions. These questions concerned the effectiveness of the formal communication network with regard to decision-making and innovations information, including a summary question about ways to improve communication. Findings of the study suggest that decentralization of a school district's communication network may adversely affect communication between departments and schools, especially during periods of retrenchment. (JBM)

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A STUDY OF ADMINISTRATOR COMMUNICATION NETWORKS IN A PUBLIC SCHOOL DISTRICT UNDER CONDITIONS OF CONTRACTION

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A STUDY OF ADMINISTRATOR COMMUNICATION NETWORKS IN A PUBLIC SCHOOL DISTRICT UNDER CONDITIONS OF CONTRACTION

Introduction

In 1975, the school district which served as the focus of this study was reorganized from being what was viewed as a centralized system to a decentralized system, with one goal being to improve its organizational communication (Andrews and Clark, 1974). One year after the implementation of decentralization, a study revealed that school administrators were concerned about the effectiveness of the district's communication (Hines, 1976). While principals noted an increase in their involvement in instructional decision-making, they were not more satisfied with the district than when it was centralized. The junior high school principals indicated their involvement had increased, but elementary and senior high principals did not. Central office and area administrators generally indicated reduced satisfaction with the district. Communication between the district administration and staff members received reduced satisfaction ratings from all administrators, but principals noted increased satisfaction in accessibility to their immediate supervisor.

Since the first follow-up study, school district administrators have indicated that organizational communication has continued to present difficulties in their ability to participate fully in the decision-making processes of the district. Even though the district's hierarchical structure was designed to accommodate the flow of information, many administrators appeared to believe that the communciation network did not function as effectively as it could.

In the years since the reorganization, the environmental conditions surrounding the district have changed markedly, necessitating an increased number of centralized decisions about the allocation of scarce resources. The Basic Education Act, passed by the 1978 Washington State Legislature, coupled with the 1978 Doran Decision (Seattle School District v. State of Washington, 90/Wn. 2d 476, 585/0.2d/71/1978) and reinforced by the Doran Decision of 1983, (Seattle School District No. 1, et al. v. State of Washington, et al., Thurston County Superior Court No. 81-2-1713-1, 1983) made it clear that the State of Washington would define the components of "Basic Education" and would fund those components through the application of formulas that applied equally to all school districts. The school district, faced with an enrollment decline of approximately four percent per year, had to make annual decisions about reductions in staffing and school programs. These district decisions were made through processes which involved the administrators in deliberations leading to formal recommendations to the superintendent. The administrators' recommendations were developed through the actions of the Administrative Senate, a representative administrative body. Also, principals were involved in deliberations by the Education Program Committee (EPC), composed of students, parents, teachers and principals. The Superintendent's Executive Committee (composed of the superintendent, deputy superintendent, two area superintendents, the assistant to the superintendent, the business manager and the executive secretary) reviewed the recommendations of the Administrative

Senate and the EPC prior to action by the Board of Directors. Further, a Fiscal Committee, composed of district patrons, advised the Board on matters of finance. As noted by Andrews (1983), school administrators are often ill-equipped to manage declining resources because their training occurred in periods of growth, and the decline began with little time to prepare for it.

At the same time these financial decisions were being made, the district reduced the number of administrators by 38 percent. As administrators retired or left the district, they often were not replaced, and their responsibilities were redistributed among those administrators who remained in central office positions.

Other conditions existed which seemed to require centralized decisions. The school buildings, along with other facilities, began to show their age and required attention. Modernization and repairs of the facilities were analyzed and priorities were set for major projects requiring large amounts of money. It was apparent that the modernization and repair needs would drain funds from the basic operational funds, further straining that limited budget.

Faced with limited sources of funding and a declining enrollment, the district began in 1978 to close schools to save overhead costs to bring relief to the operational budget. Since that time, eight elementary schools and one junior high school were closed.

Despite the adverse financial and enrollment conditions, the district continued to make a firm commitment to improvement of the educational program. A process for setting district goals had been developed whereby patrons, teachers and administrators participated in identifying priority goals each biennium. In the goals for the district, published in August, 1982, communication again was identified as important. The district established five goals which were:

1. Maintain (and improve) the educational program and student achievement.
2. Implement K-5, 6-8, 9-12 grade reorganization.
3. Provide support services and financial resources necessary to maintain educational program effectiveness.
4. Improve the effectiveness and the efficiency of district communications with respect to the organization structure, the human relations aspects and the technical capabilities of the communication network.
5. Provide for the capital needs of the district.

The establishment of these goals signified further need for the district administrators to participate in centralized decision-making processes. While many instructional decisions continued to be made at the school level, it was increasingly apparent that these decisions were limited to fit within the declining resources pattern and the overall district priorities.

The purpose of this research was to describe, through communication network analysis and individual interviews, district administrators' communication networks related to decision-making and the initiation of innovations in a single, medium-sized school district.

Theoretical Framework

In any organization, effective communication networks are critical to the effective coordination and control of individuals and groups, the achievement of organizational goals, the diffusion and implementation of innovations, and the socialization of members to organizational norms (Farace, Monge and Russell, 1977). Those organizations which are open systems and are loosely coupled as well are particularly dependent upon communication networks if they are to achieve their goals through the efforts of member departments and units. The administrator's task is to attend to the "glue" that holds the system together--the communication patterns that help members of the organization cooperate to achieve the system-wide goals, to give a common direction. As Weick noted (1982:676), the chief responsibility of a school administrator is to reaffirm and solidify those ties that exist. The system is energized by way of the flow of communication through the networks.

Within a school system, then, which is organized according to the open systems model, the relationships between the units (e.g., the superintendent's office and the schools) are loosely coupled (Weick, 1982). There is autonomy within the unit (school or department) to deviate from system goals, as long as that unit produces acceptable goals in line with the overall mission of the school system. The major role of communication in the open system (Katz and Kahn, 1978) is to import information from the external environment, to transform the information into a product (in schools, this is defined as providing education for students) and to export the product to the external environment. This model requires the social structuring of events and depends upon the continuous communication of the system members. It requires the processing of information through coding and decoding in the sharing of that information. "Among the various flows connecting system elements," stated Scott (1981:112), "the flow of information is the most critical."

As noted by Etzioni (1968), leaders of open systems are responsive to their members and work toward building an organizational structure which allows the individual to realize his/her potential through active participation in decision-making processes. This research was designed to study a medium-sized school district which was deemed to have been organized along Etzioni's concepts, and was identified as an "actively-structured" system by Hines in his 1976 study. He stated that the system "must be responsive to the needs of those it serves and those it employees and committed to goals which will satisfy such needs." (Hines, 1976:9) The major role of communication in an actively-structured system is to provide for the flow of information from the members to the top administrators (upward movement) and to provide for the movement of information from the top administrators to the members (downward movement). It is equally important that schools and departments communicate horizontally so that district goals can be achieved.

The structure of the school system, as used herein, resulted from a reorganization in 1975. The decentralized decision-making created a loosely coupled system of schools within two geographical areas. Decision-making processes included the involvement of administrators, teachers and parents. Instructional decisions were to be decentralized and decisions regarding support services (e.g., transportation, business) were to be centralized. These decision-making relationships were designed to be flexible, to assure

the district's ability to adapt to changing situations. Controls exercised by the central administration of the "actively-structured system" were to be achieved through feedback and evaluation of goal accomplishments by the member departments and schools (Hines, 1976).

In the paradigms set forth by Likert (1967), Etzioni (1968), and Ouchi (1981), Farace, Monge and Russell (1977), Rogers and Kincaid (1981), Weick (1979), Katz and Kahn (1978), Lawrence and Lorsch (1969), and Pfeffer and Salancik (1978), both formal (prescribed) and informal (emergent) channels and dynamics of organizational communication are identified as important to the functioning of the organization. In conjunction with the concepts of the open system and the loosely coupled organization presented by Weick (1982), the communication structure can be described by means of analyzing the communication networks.

Network analysis calls upon the researcher to view the organization as a social system composed of members who are joined by a variety of relationships. Its origins may be found in structural-functional theory (Farace, Monge and Russell, 1977), exchange theory (Blau, 1964) and role theory (Katz and Kahn, 1978). When the organization is viewed from a communication perspective, the emphasis is placed upon information exchange. The communication relationships become the basis for network analysis, which can be used to ascertain the "development of mutual understanding that emerges over time between those who share information with one another" (Rogers and Kincaid, 1981:45).

The research described here was undertaken to investigate the process of communication within a single school district, and to examine the changing nature of two identified communication networks over the course of a school year, as the school district endeavored to make changes and institute innovations under conditions of contraction. Considering the decentralized, loosely coupled organizational system along with the communication difficulties that were perceived by administrators, research questions were developed as follows:

1. With whom do administrators communicate about decisions they make or help to make? With whom would they desire to communicate about decisions if they had the opportunity to do so?

2. With whom do administrators communicate about innovations in their schools or departments? With whom would they desire to communicate about innovations, if they had the opportunity to do so?

3. How do the formal, decision-making and innovation communication networks compare?

4. How do these three networks compare six months later, after new administrators have joined the district?

5. What specific strengths and weaknesses do administrators perceive to exist in the organizational communication network as related to decision-making and innovations?

6. Are there implications for change in the formal administrative network?

The multi-method approach of this research study, described below, was selected to provide answers to the six questions.

Method

Network analysis provides a method by which the communication structure in an organization may be identified. It can be a starting point for analyzing relational data in reference to communication flow. The organization's communication network, thus described, consists of individual members who are linked together through patterned communication flows, seen as a series of overlapping dyadic linkages (Farace and Danowski, 1973). These linkages provide for the exchange of information critical to the functioning of the organization. Network analysis techniques provide a general evaluation of the formal communication network, a clear picture of the informal communication networks, a comparison of the formal and informal networks, an appraisal of the groups within the larger organization, and an evaluation of individual roles in the system (Monge and Lindsey, 1974).

Over the past several years, little research has been conducted on the application of communication network analysis to organizational processes of school districts. The research to date has been largely confined to analyses of within-school communication networks using only quantitative data generated from network analysis without qualitative data to provide a basis for interpretation. One district-wide study (Austin Independent School District, 1975) utilized both network analysis and interview data to describe the flow of communication among administrators and secretaries. This study was made at a single point in time. Because communication patterns change over time, it is important to analyze networks periodically in order to get a truer perspective of the networks. It is difficult, however, to find research which analyzes communication network data over time.

In this study, all 97 administrators of the school district participated during the 1982-83 school year. In addition to two networks analyses in which all 97 participants were surveyed, 51 administrators were individually interviewed. The interview participants were selected by three interviewers, with the sample stratified by six district divisions (superintendent's office, support services, area administrators, elementary principals, junior high principals, and senior high principals) and the experience of the administrator in the district. The network analysis surveys were administered by the researcher in September, 1982, and in March, 1983, and interviews were conducted by representatives of the Speech Communication Department at the University of Washington during November and December, 1982. Each one-hour interview followed a semi-structured question format.

The content of the study was the administrators' perceptions of their "actual" and "desired" contacts with other district administrators with regard to day-to-day decisions and to innovations they were considering. The surveys

used to gather this information were administered to the entire sample, and were designed to permit each individual to reflect upon the frequency of his/her communication links with each other administrator in the district, listed by division and name on the instrument. Separate responses were made for "actual" and "desired" communication contacts for both decision-making and innovation networks. Participants were asked to consider each name on the roster and to indicate how often they contacted that individual for information regarding decisions and/or innovations.

The NEGOPY computer network program was applied to the analysis of the survey data. As described by Rogers and Kincaid (1981) and Richards (1975), NEGOPY is a pattern-recognition computer program, used to analyze communication patterns from respondent data. NEGOPY categorizes the network respondents into a variety of communication roles, including group members, liaisons, bridges, dyads, tree nodes, and isolates, as defined below.

Group Member: An individual with more than 50.01 percent of his/her communication links with other members of the same group.

Liaison: An individual connecting two or more groups within a system without belonging to any group.

Bridge: A group member connecting his/her group, via a dyad link, to another group.

Dyad: Two linked individuals with no other links.

Tree Node: A member of a sub-set of individuals, the removal of any one of which would separate the sub-set into isolated parts.

Isolate: An individual with only one link or no links to other nodes.

Network properties related to the communication structure--based upon the measures of proximity of individuals, dyads and groups within the system--were operationalized according to Richards' definitions (1975) for connectedness, openness, diversity and integration:

Proximity: The degree to which two persons in a network have personal communication networks that overlap.

Connectedness: The degree to which the focal unit is linked to other units.

Openness: The degree to which a unit exchanges information with its environment.

Diversity: The degree to which those units linked to the focal unit are heterogeneous with respect to some variable.

Integration: The degree to which those units linked to the focal unit are linked to each other.

The NEGOPY program algorithm operates within the parameters of stated criteria to establish group membership. Linkage is operationalized to mean the amount of links, based upon the frequency of contact reported by participants. The overall goals of the NEGOPY program are to classify the individuals in the network into communication roles, based on their patterns of interaction with each other, and to provide network information at the group and system levels. NEGOPY provides relational analysis; e.g., it describes the relationships between individuals based upon a specific definition of those individuals' proximity to one another.

Survey data were submitted to the NEGOPY network analysis for four separate communication networks in September, 1982, and again in March, 1983. These four networks were identified as "actual decision-making," "desired decision-making," "actual innovation" and "desired innovation" networks. Only reciprocated links which occurred at the frequency of once a week or more often were utilized in this study.

Questions for the interview were designed to elicit the respondents' perceptions about the effectiveness of the formal communication network with regard to decision-making and innovations information. A summary question asked the participants to reflect about ways in which communication could be improved.

Data Source

The raw data used to describe the connectedness, openness, diversity and integration of the communication networks were obtained from the administration of the NEGOPY Network Survey. The reliability of the procedure was established by Rogers and Kincaid (1981) and by the use of only reciprocated responses between subjects. The data used to assess the meaning of the effectiveness of the communication network were gathered by individual interviewers using the Communication Interview Guide developed for use in the study. Both the format of the NEGOPY survey and the interview guide were pilot-tested with a group of twelve administrators and were revised for clarity. Standard procedures were used to assure reliability of data across interviewers.

The analysis of the data consisted of six sets of procedures:

1. Respondent surveys were analyzed through application of Richards' NEGOPY computer network analysis program, which identified structural roles--as measured by the indices of connectedness, openness, diversity and integration.

2. NEGOPY computer print-outs were recorded on summary charts for both the decision-making and innovations networks to show individual member number, coded experience as an administrator, the formal organizational role by division, the communication role for each network—actual decision-making, desired decision-making, actual innovation, and desired innovation--the individual integration ratio as computed by

the NEGOPY program, the number of reciprocated links, the number of unreciprocated links, and the number of links which were reported by others but not reciprocated by that individual.

3. Data were compiled for the informal groups identified through the NEGOPY analysis for both the September and March surveys, and included the level at which the members were all connected--e.g., the number of iterations in the NEGOPY algorithm needed to identify that group--, the group connectedness index--computed by NEGOPY as the number of actual links divided by the number of possible links within the group--, the number of bridge links between members of that group and members of other groups, and the number of links to liaisons.

4. The data were grouped according to the formal organizational divisions--superintendent's office, support services, area administrators, elementary principals, junior high principals, senior high principals--and showing the number of persons of that division who were group members, liaison types and isolate types.

5. An average integration index was computed for each of the six divisions by taking the individual integration ratios of division members and computing the mean for that division.

6. Interview data were submitted to a content analysis procedure after which summary statements were formulated for each of the interview questions.

Results

During the 1982-83 school year, the district attempted to respond to contracting conditions including reduced budgets, lower student enrollments, fewer staff with a high turnover of key administrators, school closures, and a major grade reorganization in an increasingly turbulent environment. Simultaneously the level of communication connectedness decreased, openness among administrative divisions diminished, communication groups lacked diversity, and many administrators were isolated from the flow of organizational communication. Even though the grade reorganization effort was a major district innovation, few administrators perceived that they discussed innovative ideas with their colleagues on a regular basis. A review of the research questions, posed earlier, provides further information.

With whom do administrators communicate about decisions they make or help to make? With whom would they desire to communicate about decisions if they had the opportunity to do so?

The two "actual" decision-making networks (September and March) each contained five groups, one of which was large and loosely connected. The connectedness ratios of the groups were generally inversely related to their size. Group membership increased from 45 in September to 81 in March. Liaisons decreased from 43 in September to 0 in March, and isolates increased from 9 in September to 16 in March. It was apparent that, by March, the administrators were either a member of one of the communication groups or they were relatively isolated from organizational communication flows.

The measure of openness showed the percent of within-group communication was much higher in both "actual" and "desired" networks than the percent of between-group communication. The percent of between-group contacts decreased from a mean of 35 percent in September to 24 percent in March.

Communication groups had a low degree of diversity across divisions, since membership in most groups was limited to persons from a single administrative division. Respondents tended to report that most of their communication occurred with administrators who were located in closest proximity to them.

The mean integration ratios indicated that individuals were not highly integrated into the decision-making network. These "actual" network roles generally matched the "desired" network roles, with individuals indicating preference for less frequent communication than their "actual" patterns showed.

Interview data indicated that administrators perceived their colleagues to be open and approachable, and that a variety of processes existed in the district to permit their involvement in district decision-making.

With whom do administrators communicate about innovations in their schools or departments? With whom would they desire to communicate about innovations, if they had the opportunity to do so?

The two communication networks for innovations were both sparse, loosely connected, and erratic, with more administrators being isolated from communication than those found in group membership or liaison roles. In the "actual" networks, there were seven small groups in September and eight in March. The connectedness ratios of the groups fell in the medium to high range, but isolate types predominated, with 55.7 percent having that role in September and 49.5 percent in March. There was no regular pattern of communication among administrators with regard to discussing "creative ideas," "new perspectives," or "different insights" with regard to making desired changes in their departments or schools. Group membership increased from 28 in September to 36 in March. Liaisons remained fairly constant, with 15 in September and 13 in March; isolates followed a similar pattern, with 54 in September and 48 in March.

The measure of openness showed an increase of "actual" between-group contacts from 13 percent in September to 27 percent in March. The small number of group members, liaisons and bridges (1 in September and 8 in March), and the low percent of between-group contacts confirmed the pattern of very infrequent communication among district administrators about innovations.

The small groups that were identified were not at all diverse in their membership; rather, they were nearly homogeneous within a single administrative division. Elementary and junior high principals were not members of innovations communication groups, and senior high principals appeared to discuss innovations only among their administrative teams within a single school.

The mean integration ratios were extremely low for all divisions but the senior high principals. Patterns were similar for both the "actual" and "desired" innovations communication networks.

Interview data showed few participants expressing a clear understanding of ways innovations were initiated in the district. While most respondents said that they depended upon their colleagues for ideas for innovations, the network data did not support the existence of such contact at the "once a week" frequency.

How do the formal, decision-making and innovation communication networks compare?

When comparing the formal network with the informal networks, the six divisions of administrators differed in their communication patterns. The Superintendents (N=5), whose mean rating of approachability was lower than those for other divisions, were identified as members of groups or liaisons in both the decision-making and innovations networks. Only one administrator from this division was isolated in the innovations networks, and the integration ratio for this division was higher for decision-making than for innovation communication.

Support Services Admimnistrators (N=36) were members of groups in all the networks, although their groups rarely included members from other divisions. The liaison role was minimally represented, and there were more isolated roles for innovations than for decision-making communication. Integration ratios were higher for the decision-making networks than for the innovation networks. This division was rated slightly higher in approachability than the Superintendent's division. Interview data showed a perception of a hierarchical, bureaucratic model for decision-making, and most did not indicate knowledge of the manner in which innovations came about in the district.

Area Administrators (N=11) had varied communication patterns for decision-making; in September, most were liaisons, but by March, all were members of groups. These network patterns corresponded to their interview data, which reflected their view that the district's decision-making processes were participatory. The innovation network data showing few liaisons and a large number of isolates presented communication roles that appeared to contradict the formal job expectations for area administrators. Their formal role was to be liaisons with regard to the development and implementation of curriculum, working together with district committees and school personnel. While their approachability rating was just above the overall mean, their integration ratio showed a low degree of integration within the total district communication.

Elementary Principals (N=19) had more isolated members than any other division. Although they stated in the interviews that district decision-making processes were democratic, they were not sure how innovations came about. Their integration ratios were lowest of all divisions for all networks, supporting the network and interview data which, in the main, described the Elementary Principals as isolated from communication among the district administrative group.

Junior High Principals (N=14) served as liaisons to other divisions in the September decision-making networks, but were virtually isolated with regard to innovations. These principals had almost no membership in groups in any of the networks. More than any other division, these interview participants stated that they perceived the decision-making processes to be imposed hierarchically, from the top-down. Their integration ratios were nearly as low as those for the Elementary Principals.

Senior High Principals (N=12) had the highest integration ratio for both decision-making and innovations networks. They tended to communicate most frequently within their administrative teams at a single high school. Their March innovations network showed a high number of liaisons connecting their division with others. Members of this division, when interviewed, perceived the decision-making processes to be accessible to them, but said that these processes were situational in nature, and not always predictable.

How do these three networks compare six months later, after new administrators have the joined the district?

In comparing the September and March data, the six divisions of administrators were not connected in any of the communication networks. The groups within these networks tended, in the main, to be homogeneous in their membership, with little diversity across divisions. The large number of isolates signified that those administrators were not connected to the flow of information through the organization. In particular, the school principals were not connected to each other's divisions nor to the areas, support services, or the superintendent's office. There appeared to be a lack of common perception about the way in which district decisions were made and about the way in which innovations came to pass. The overall pattern for the divisions throughout all the networks was that of a loosely connected communication network, with superintendents and support services administrators most often seen as members of groups, but with elementary and junior high principals most often seen as isolated in all communication networks.

For the decision-making networks, the most noticeable change occurred between September and March when the liaison role disappeared. The large group in the September network increased from 23 to 60 members in March, and there was a drop in between-group communication. This drop corresponded with the growth in the number of isolate-types from September to March.

For innovations, the number of liaisons remained constant, but half of the administrators were found to be relatively isolated with regard to this

communication network. Therefore, most administrators had not been regularly discussing innovations with their colleagues, either in their own division or across divisions.

Administrators who were new to the district in September were assimilated into the networks, with the exception of the Junior High Principals division, where three new principals remained relatively isolated throughout all the networks, all year.

What specific strengths and weaknesses do administrators perceive to exist in the organizational communication network as related to decision-making and innovations?

Answers to this question were obtained from an analysis of interview data. With regard to communication regarding decisions, identified strengths included the high degree of administrators' approachability and the number of opportunities for involvement in the processes for making decisions. Participants indicated that they received enough information to make day-to-day decisions and that they were satisfied with the amount of information they received in times of crisis.

Weaknesses in the decision-making communication network included a perceived lack of structure which would routinely accommodate cross-department and cross-school communication. While the administrators expressed a high degree of respect and appreciation for their colleagues, they believed that the system could be strengthened to permit more interaction between divisions. Comments reflected a need to improve administrative meetings and group processes.

For the innovation network, the major strength perceived was the opportunity for "anyone" to initiate an innovation. Weaknesses included the general lack of commmunication about innovations and the lack of understanding of the ways in which innovations could be initiated in the district. While 27.5 percent of participants said that innovations were initiated at the top level of administration, none of the superintendents stated that this was the case.

Are there implications of change in the formal administrative network?

If all divisions are to participate in centralized decision-making processes, it will be important to strengthen the inter-departmental and inter-school communications. Participatory groups for decision-making, such as the Administrative Senate, could be strengthened in terms of the expected communication with constituents by representatives, and the processes for discussing issues and sharing information prior to making group decisions.

The liaison role could be formally recognized so as to maximize the flow of information and facilitate the diffusion of innovative ideas throughout the organization. Those administrators who have formal liaison roles could receive training to help them perform more effectively in sharing information with different divisions.

District meetings and occasional retreats could emphasize the processing of information and provide time for the discussion of ideas and problems among divisions. It may be important to bring together heterogeneous groups of administrators to discuss common problems and concerns or to participate in "think tanks" or brainstorming sessions. The consolidation of central and area offices could provide the opportunity for increased communication between the superintendent's office, the support services and the area divisions.

Basically, however, it appeared that the formal organizational structure of the district could accommodate the communication needs, if steps were taken to reinforce the links between divisions so that more administrators were aware of information both within and between their division and others.

Implications of the Study

The findings of this research suggest that the decentralization of administrative units may have a negative impact on communication between departments and schools, especially during periods of decline and the resulting reduction in school programs and services. While the administrators in this study said in their interviews that they desired more communication between departments and schools, their network data contradicted this. With the pressures inherent in the day-to-day management of the schools, perhaps the structure of the administrative organization should accommodate the coming together of unit administrators for the purpose of sharing ideas and engaging in problem-solving activities, a centralized activity to give direction.

Weick (1982) contends that, because they are loosely coupled organizations, schools need to be managed differently than the typical hierarchical system. People should realize, he states, ". . .that the task of educating is simply not the kind of task that can be performed in a tightly coupled system (p.674)." Yet, when large-scale change is needed in the loosely coupled system, it is difficult to get agreement on design and then to diffuse it through the system. The changes do not spread far enough or quickly enough. Certainly the results of this research highlighted the fact that the principals, faced with a major innovation of a district-wide grade reorganization, did not discuss innovations among themselves on a frequent basis.

The strengths of the loosely coupled, decentralized system include an ability to preserve novelty, to be flexible in meeting local conditions, to adapt to change in a diverse environment, and to solve problems at a local level before they become unmanageable. These very strengths, however, may turn to weaknesses if far-reaching changes are needed, if large system problems need organizational response, or if environmental changes are persistent and far-reaching.

Bringing about major changes in the loosely coupled system requires administrators to start projects earlier, to start more projects, to discuss those projects over and over with a great variety of people, and to be willing to allow other members of the system to make improvisations. (Weick, 1982)

Themes, mission statements and district goals can be communicated, thus holding the organization together. District meetings and retreats can emphasize these themes, mission statements and goals, and provide time and space for the discussion of information, ideas and issues among divisions and units. The leadership of the superintendent and the top-level administrators should serve to strengthen the communication of the symbols of district unity--its themes, mission statements and goals.

The findings of this study have merit and are generalizable to other school districts if they have been organized along a decentralized model. It may be that the need for organizational communication is different in times of contraction and decline than it is in times of expansion and growth. The risk in loosely coupled systems is that people may become lonely and uncertain, losing track of the organizational mission, and becoming captives of the local populations that surround them. They may find themselves making local accommodations that actually undercut the educational aims of the system (Weick, 1982). This study reaffirmed the need for administrators to strengthen and energize those communication links that exist, and to develop healthier communication networks as measured by the degree of their connectedness, openness, diversity and integration. The school district's mission should be clear, and a strong sense of direction should motivate the actions of administrators as they fulfill their roles as members of an effective system.

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REFERENCES

Andrews, R.L. 1983. "Managing Contracting Systems: Three Policy Alternatives." Education and Urban Society 15:199-210.

Andrews, R.L. and Clark, R.W. 1974. "The Actively-Structured School Organization." Unpublished manuscript, University of Washington.

Austin Independent School District. 1975. "Internal Communication Study." Unpublished report, Department of Health, Education and Welfare.

Blau, P. 1964. Exchange and Power in Social Life. New York: Wiley.

Etzioni, A. 1968. The Active Society. New York: The Free Press.

Farace, R.V. and Danowski, J.A. 1973. "Analyzing Human Communication Networks in Organizations: Applications to Management Problems." Unpublished paper presented to the International Communication Association. East Lansing, Michigan: Michigan State University.

Farace, R.V., Monge, P.R., and Russell, H.M. 1977. Communicating and Organizing. Reading, Massachusetts: Addison-Wesley.

Hines, D.W. 1976. "An Analysis of Selected Concepts of the Actively Structured School Organization after Implementation in a Local District." Unpublished doctoral dissertation, University of Washington.

Katz, D. and Kahn, R. 1978. The Social Psychology of Organizations. New York: John Wiley.

Lawrence, P. R. and Lorsch, J.W. 1969. Organization and Environment. Homewood, Illinois: Irwin.

Likert, R. 1967. The Human Organization. New York: McGraw-Hill.

Monge, P., and Lindsey, G. 1974. "The Study of Communication Networks and Communication Structure in Large Organizations." Paper presented at the Annual Convention of the International Communication Association, New Orleans, Louisiana.

Ouchi, W. 1981. Theory Z: How American Business Can Meet the Japanese Challenge. Reading: Addison-Wesley.

Pfeffer, J. and Salancik, G.R. 1978. The External Control of Organizations. New York: Harper and Row.

Richards, W.D. 1975. "A Manual for Network Analysis Using the NEGOPY Network Analysis Program." Unpublished document, Stanford University.

Rogers, E.M. and Kincaid, D.L. 1981. Communication Networks: Toward a New Paradigm for Research. New York: The Free Press.

Scott, W.R. 1981. Organizations: Rational, Natural and Open Systems. Englewood Cliffs, New Jersey: Prentice-Hall.

Weick, K.E. 1982. "Administering Education in Loosely Coupled Schools." Phi Delta Kappan 63:673-676.

Weick, K.E. 1979. The Social Psychology of Organizing. Reading: Addison-Wesley.

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